SECRET

DEPARTMENT OF THE AIR FORCE
Headquarters United States Air Force
Washington 25, D. C.

AFCIN   10 September 1957

MEMORANDUM FOR DEPUTY DIRECTOR, OFFICE OF SPECIAL INTERNATIONAL AFFAIRS
          OSD, ATTN: COLONEL F. J. CHESAREK

SUBJECT: Soviet Electronic Aids to Air Navigation

     1. Reference your I-15,561/7, the following information on Soviet
Electronic Aids to Air Navigation is submitted:

          a. A total of nine GCA installations have been identified on
Soviet military airfields. Four of these are in East Germany, one in
Poland and four in the USSR. We estimate that one GCA per air division
will be installed by 1959.

          b. Only one ILS installation has been identified at a military
airfield. This is at Gross Dolln in East Germany.

          c. ILS equipment is installed in the Bison and Badger Soviet
bomber aircraft.

          d. There are no indications that ILS equipment is installed in
Soviet fighter aircraft.

          e. Although it is estimated that new developments are underway
in radio navigation equipment, the radio homing beacon is still the
Soviets' basic navigation and landing aid.

          f. The Soviets have been using a four channel VHF set for
air-ground communications. However, these sets have only been available
for about four years. A new 10 channel set is just now becomming available.

          g. During the last 10 years the Soviet electronics industry has
expanded rapidly; however, limitations still exist on their ability to
develop and produce new equipment. Electron tube production at the present
time appears to be able to meet current demand but cannot supply a greatly
accelerated expansion of the electronics industry or build up a backlog to
meet emergency requirements. There are indications that the Soviets are
having difficulties with new production techniques, particularly minaturization
of standard equipment.

                    FOR THE CHIEF OF STAFF: "Signed"

                                                   R. A. Breitweiser
                                                   ROBERT A. BREITWEISER
                                                   Brigadier General, USAF
                    SECRET   Director of Estimates